

ABSTRACT

A method and apparatus for delivering a medicine to a patient via the patient's respiratory system with control and efficiency. A nebulization catheter is positioned in the patient's respiratory system so that a distal end of the nebulization catheter is in the respiratory system and a proximal end is outside the body. In a first aspect, the nebulization catheter may be used in conjunction with an endotracheal tube and preferably is removable from the endotracheal tube. The nebulization catheter conveys medicine in liquid form to the distal end at which location the medicine is nebulized by a pressurized gas or other nebulizing mechanism. The nebulized medicine is conveyed to the patient's lungs by the patient's respiration which may be assisted by a ventilator. By producing the aerosol of the liquid medicine at a location inside the patient's respiratory system, the nebulizing catheter provides for increased efficiency and control of the dosage of medicine being delivered. In further aspects of the nebulizing catheter apparatus and method, alternative tip constructions, flow pulsation patterns, centering devices, sensing devices, and aspiration features afford greater efficiency and control of aerosolized medicine dosage delivery.